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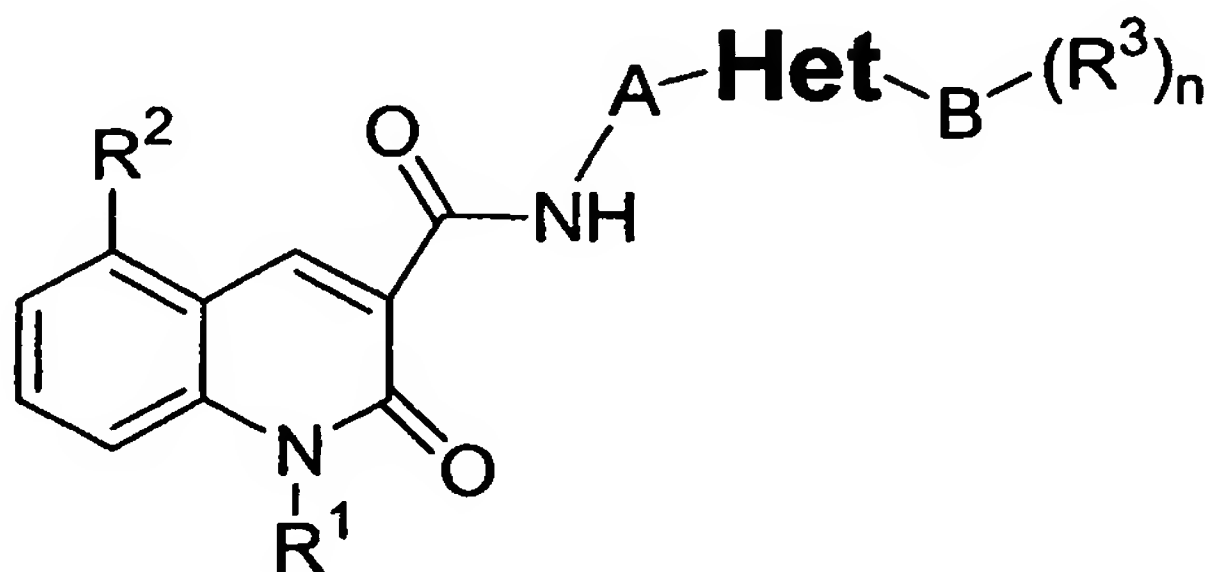
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(54) Title: QUINOLONECARBOXYLIC ACID COMPOUNDS HAVING 5-HT₄ RECEPTOR AGONISTIC ACTIVITY



(I)

(57) Abstract: This invention provides a compound of the formula (I): wherein Het represents a heterocyclic group having one nitrogen atom, to which B binds directly, and from 4 to 7 carbon atoms, and said heterocyclic group being unsubstituted or substituted by 1 to 4 substituents independently selected from the group consisting of substituents α^1 ; A represents an alkylene group having from 1 to 4 carbon atoms; B represents a covalent bond or an alkylene group having from 1 to 5 carbon atoms; R¹ represents an isopropyl group, a n-propyl group or a cyclopentyl group; R²

represents a methyl group, a fluorine atom or a chlorine atom; R³ independently represents (i) an oxo group, a hydroxy group, an amino group, an alkylamino group or a carboxyl group; (ii) a cycloalkyl group having from 3 to 8 carbon atoms, and said cycloalkyl group being substituted by 1 to 5 substituents, or (iii) a heterocyclic group having from 3 to 8 atoms, and said heterocyclic group being unsubstituted or substituted by 1 to 5 substituents, and n is 1, 2 or 3, or a pharmaceutically acceptable salts thereof. These compounds have 5-HT₄ receptor agonistic activity, and thus are useful for the treatment of gastroesophageal reflux disease, non-ulcer dyspepsia, functional dyspepsia, irritable bowel syndrome or the like in mammalian, especially humans.